



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,464	02/05/2004	Takashi Ozawa	Q79729	2948

23373 7590 12/27/2005

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

MARTIN, LAURA E

ART UNIT	PAPER NUMBER
----------	--------------

2853

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/771,464

Applicant(s)

OZAWA ET AL.

Examiner

Laura E. Martin

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/17/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities: the statement "at least one water-miscible organic solvent has a solubility of less than 10 (g/100g)" is unclear in both the specification and claims; examiner assumes that applicant meant to specify the ink solubility and has examined the claims as such. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being obvious over Taguchi et al. (US 20040050291) in view of Provost et al. (US 6336721).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject

Art Unit: 2853

matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Taguchi et al. teaches an inkjet recording ink comprising at least one dye dissolved and/or dispersed in the aqueous medium [0013], wherein said at least one dye has a maximum absorption spectrum λ_{\max} at a wavelength range of from 390 nm to 470 nm and a $I(\lambda_{\max} + 70)/I(\lambda_{\max})$ ratio of not greater than 0.4, in which $I(\lambda_{\max})$ is the absorbance at λ_{\max} and $I(\lambda_{\max} + 70 \text{ nm})$ is the absorbance at $\lambda_{\max} + 70 \text{ nm}$ [0038-0040]; wherein the inkjet recording ink exhibits an accelerated fading rate constant of not greater than $5.0 \times 10^{-2} \text{ (hour}^{-1}\text{)}$, in which the accelerated fading rate constant is determined by printing the ink on a reflection medium to prepare a printed matter, measuring a reflection density through a status A filter to define an initial value of reflection density (D_B) in the yellow region by one point between 0.90 and 1.10, and acceleratedly fading the printed matter by using an ozone fading tester capable of always generating 5ppm of ozone, so as to define the fading rate constant from the time required until the reflection density reaches 80% of the initial value [0013]. Taguchi et

al. also teaches the dye exhibiting a λ_{max} at a wavelength range of 390 nm to 470 nm and a $I(\lambda_{\text{max}} + 70 \text{ nm})/I(\lambda_{\text{max}})$ ratio of not greater than 0.2 in which $I(\lambda_{\text{max}})$ is the absorbance at λ_{max} and $I(\lambda_{\text{max}} + 70 \text{ nm})$ is the absorbance at $\lambda_{\text{max}} + 70 \text{ nm}$ [0038-0040]. Taguchi et al. also teaches ink wherein the dye has an oxidation potential of more positive than 1.0V (vs SCE) [0015]. Taguchi et al. also teaches the dye compound represented by a formula having a λ_{max} at a wavelength range from 390 nm to 470 nm, A-N=N-B in which A and B each independently represents a heterocyclic group which may be substituted [0040]. Taguchi et al. also teaches at least one dye is 0.2 to 20 weight% based on the ink [0079].

Taguchi et al. does not teach an aqueous medium comprising at least one water-miscible organic solvent satisfying one of the following requirements: 1) all of said at least one water-miscible organic solvent has a solubility of less than 10 (g/100g) in the dye at 25°C; 2) at least one of said at least one water-miscible organic solvent has a solubility of not smaller than 10 (g/100g) in the dye at 25°C, with the proviso that the sum of the weight of the water-miscible organic solvent having a solubility of not smaller than 10 (g/100g) in the dye at 25°C is not greater than 10% of the weight of the ink. Taguchi et al. also does not teach the number of water-miscible organic solvents is at least two or that the total amount of the water-miscible organic solvent is 1 to 60 weight% based on the ink.

Provost et al. teaches an aqueous medium comprising at least one water-miscible organic solvent satisfying one of the following requirements: 1) all of said at least one water-miscible organic solvent (C12, L15-25) has a solubility of less than 10

Art Unit: 2853

(g/100g) in the dye at 25°C; 2) at least one of said at least one water-miscible organic solvent has a solubility of not smaller than 10 (g/100g) in the dye at 25°C (C11, L65-67), with the proviso that the sum of the weight of the water-miscible organic solvent having a solubility of not smaller than 10 (g/100g) in the dye at 25°C is not greater than 10% of the weight of the ink (Table 1, Ink no. 11). Provost et al. also teaches the number of water-miscible organic solvents is at least two (C12, L17-37). Provost et al. also teaches discloses the total amount of the water-miscible organic solvent is 1 to 60 weight% based on the ink (C12, L12-16).


It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Taguchi et al. with that of Provost et al. in order to improve ink composition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Martin whose telephone number is (571) 272-2160. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura E. Martin


12/22/05
MANISH S. SHAH
PRIMARY EXAMINER